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EGYPTIAN FISHERIES[1/]

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Introduction

In Egypt's postwar plans to improve the well-being of her increasing population figure the reorganization and expansion of the fishing industry. Egypt, with a Mediterranean littoral to the north, a long sea coast on the Red Sea to the east, and an extensive system of lakes, canals, drainage and irrigation works connected with the Nile may become self-sufficient in edible fish and solve the problem of feeding her under-nourished population.

Salt and fresh water fish supply proteins, calcium, iodine, phosphorus and many other elements very useful in the diet of the people.

Egyptian fisheries fall into three categories:

(1) Marine or pelagic fisheries centered in the Mediterranean Sea, the Red Sea and the Suez Canal. In this category is sponge fishing carried on off the coast between Alexandria and Sollum.

1/ Report No. 95, Alexandria, Egypt, December 6, 1949

(2) Lake fisheries carried on in Lakes Manzala, Borollos, Edkou and Karoun, as well as the Bardawil and Oasis Siwa lagoons.

(3) Inland fisheries in the Nile with its canals, drainage and irrigation works.

Edible Egyptian fish are classified as follows:

Mediterranean fish - first quality
Red Sea fish - second quality
Lake and river fish - third quality

It is estimated that 50,000 men and 18,000 boys are engaged in fishing with an annual production of approximately 50,000 metric tons of fish valued at a million Egyptian pounds.

Production

Egypt with a coast line of more than 2,500 kilometers on the Mediterranean, the Red Sea and the Nile River system, has a low catch in edible marine and fresh water fish.

Primitive fishing methods are responsible for the small taking. Most of the fishing is done by native fishermen in old vessels with primitive gear. Other factors against the full development of the industry are (a) fishing in Egyptian waters is restricted to Egyptians, and (b) two-thirds of the Egyptian fishing fleet is in need of repairs.

Prior to the outbreak of World War II Greeks from the Dodecanese Islands and Italians from Sicily employed modern equipment in fishing, but they have gone.

In 1938 annual production was about 55,000 metric tons. This dropped in war years to 30,000 metric tons, most of which came from inland fisheries. The 1948 catch is estimated at 42,000 metric tons. Forecasts for 1949 place total takings somewhat below the 1948 figure because of the small sardine catch.

The 1948 catch was:

Source	Metric Tons	Percent of Total Taking
Marine Fisheries	12,500	29.0
Lake Fisheries	25,000	59.5
Inland Fisheries	4,500	11.5
	42,000	

Marine fishing

Of the total for marine fishing it is estimated that the sardine catch accounts for 40 percent or 5,000 tons, coastal fisheries for 3,500 tons or 28 percent, and trawling for 4,000 tons or 32 percent.

Sardine fishing supplies the Egyptian laborer with one of his important foods. The season is for about four months and depends upon the floods of the Nile River lasting from August to January. Sardines approaching Egyptian waters from the direction of Algeria are attracted by the great quantity of food pouring into the Mediterranean by the Nile. The regions about Port Said, Damietta, Lake Borollos, Lake Manzala and Aboukir are the principal sardine areas.

Primitive methods are used in sardine fishing. Usually three sail boats work together. These boats are made of wood and vary from 30 to 50 tons each. Some of these are equipped with diesel motors ranging from 60 to 150 HP. Drift and seine nets are used.

About 950 small fishing vessels are engaged in sardine fishing.

Coastal fishing is carried out on all the coasts. Small sailing or row boats use dragnets, seines and lines with hooks. There are about 350 fishing boats engaged in coastal fishing, bringing in a catch of 3,500 metric tons per annum.

About 150 trawlers operate in Egyptian waters. Eighteen of these are at Suez, 40 at Alexandria and 92 at Port Said. Prior to World War II most of these fishermen were European. Now a majority are Egyptian. Annual catch amounts to approximately 4,000 metric tons.

Lake fisheries

The four principal sources of delta lake fish are Lakes Manzala, Borollos, Edkou and Mariout. They are well stocked because of their connections with the sea and with irrigation and drainage canals; and by restocking by the Fisheries Administration. It is estimated that fifteen to twenty million fry are released in these lakes each year.

Another important lake is Karoun, near Cairo. This lake at one time was fed by the Nile River but irrigation schemes cut off its source of supply. It now is being supplied from canals made under the supervision of the Fisheries Administration.

Egyptian lakes are protected by regulations enforced by the Fisheries Administration to prevent fishing in and around the inlets from the sea and during the spawning of certain species.

Takings of the lake fisheries amounts to about 25,000 metric tons or 59.5 percent of the total catch of all Egyptian fisheries. The preponderance of lake fishing is due to a larger number of fishermen employed on the lakes and to better organization.

The following is a breakdown by lake of the catch in the delta lakes:

LAKE	EXTENT FEDDANS*	CATCH METRIC TONS
MANZALA	345,000	13,700
BOROLLOS	133,000	3,900
EDKOU	32,000	2,800
MARIOUT	47,000	2,200
KAROUN	54,000	2,400
	611,000	25,000

*FEDDAN IS EQUIVALENT TO 1.038 ACRES.

The local press reports 2,000 feddans of Lake Mariout have been drained and are ready for cultivation. To offset this there is a project to create another lake in Wadi Raian in the Province of Fayoum, southwest of Karoun. This plan would give an additional 173,000 feddans of lake fishing with an estimated production of 4,000 metric tons.

Inland fisheries

The takings of inland fisheries amount to 4,500 tons per annum or 11-1/2 percent of the total catch. Drainage and irrigation schemes have reduced the tonnage of fish caught in inland waters. However, the Fisheries Administration have restocked the Nile with carp from the Dutch East Indies with very good results. It has transplanted Telapias to the springs of Siwa Oasis near the western border of Egypt. This Nile fish has now become a source of food in the Oasis of Amon in the western frontier area.

Distribution

The fish taken in Egyptian waters are sold through Halakas or fish markets which are found near the fishing grounds. Alexandria has one large Halaka to Amphouchi, Eastern Harbor. There is another large one at Port Said. Plans for another large fish market at Alexandria are under consideration.

At these Halakas baskets of fish, not of any standard size, are sold to the highest bidder.

The fish markets handling the taking in the lake fisheries are:

LAKE	EXISTING FISH MARKETS	PLANNED
MANZALA	7	-
BOROLLOS	1	2
EDKOU	1	1
MARIOUT	1	2
KAROUN	2	2

The following prices were supplied by dealers as current at the time this report was prepared:

AREA	MINIMUM	MAXIMUM
MEDITERRANEAN (1ST QUALITY) P.T.	30 PER OKE	100 PER OKE
RED SEA (2ND QUALITY) "	20 " "	80 " "
LAKE AND INLAND (3RD QUALITY) "	10 " "	25 " "

ONE EGYPTIAN OKE EQUALS 2.75 POUNDS AVOIRDUPOIS.

Manufacturing

Manufacturing operations in the fishing industry are limited to the canning of sardines at the Suez landing point and in a small factory at Aboukir near Alexandria during the short sardine season lasting for about four months.

The Aboukir factory was established in 1941 with a paid up capital of LE 50,000. With some 100 workers it has an annual output of 200 tons. Small takings of sardines during the current season have restricted operations this year.

The only other operation is the salting of mullet and sardines in a very primitive way using barrels and empty gasoline cans.

There appears to be a need of canning factories during the sardine season. Egyptian waters are also rich in mollusks and crustaceans which might be preserved. An effort has been made to can shrimps but results so far have not been satisfactory. Other secondary industries are the manufacture of fish oils, fish meal and fertilizers. All of these are projects which should receive the attention of local authorities as well as the National Government for the expansion of Egyptian canning, smoking, salting and preserving industries would absorb thousands of workers and reduce unemployment.

Consumption

The entire catch of edible fresh and salt water fish is consumed in Egypt. The catch of marine fishing is consumed in the districts of Cairo, Alexandria, Port Said, Suez and Ismailia. Lake and inland fishing supplies the inland towns and villages. The entire catch is only fifty five percent of the total consumption. The deficit is met by imports of canned, salted, dried and smoked fish.

Imports

Reliable trade sources report salted cod and smoked herring are imported from Great Britain and Norway; salted and dried mackerel, salted tunny fish from Turkey; canned salmon, tunny fish, lobsters and shrimp from United Kingdom, Japan and the United States; canned sardines and anchovies from France, Portugal and Spain.

The following tables show imports of fish during the years 1937, 1947 and 1948:

Country	1937		1947		1948	
	K. G.	L. E.	K. G.	L. E.	K. G.	L. E.
COD, SALTED, DRIED OR SMOKED						
U. K.	578,008	12,922				
AUSTRALIA	361	15				
BELGIUM & LUXEMBURG	293,355	5,283				
DENMARK	189,670	2,987				
FRANCE	1,045,742	23,129				
GERMANY	15,280	331				
GREECE	28,191	692				
NETHERLANDS	59,100	1,294				
ITALY	150	7				
NORWAY	273,776	6,341				
OTHERS	805	17	427,299	46,798	463,040	52,238
TOTAL	2,484,438	53,018	427,299	46,798	463,040	52,238
HERRINGS, SALTED, DRIED OR SMOKED						
U. K.	2,061,873	24,906	1,516,881	183,175	1,665,527	123,397
CYPRUS	1,171	16				
DENMARK	2,279	27				
GERMANY	44	1				
NETHERLANDS	43,142	614				
NORWAY	73,097	994			287,110	21,483
POLAND-DANZIG	102	7				
OTHERS			719,184	56,766	791,682	55,493
TOTAL	2,181,708	26,565	2,236,065	239,941	2.744,319	200,373
SARDINES, SALTED, DRIED OR SMOKED						
GREECE	251	10	14,117	1,264	40,546	2,913
FISH, SALTED, DRIED OR SMOKED, NOT SPECIFIED						
U. K.	20,714	874			5,693	583
HEDJAZ & NEJD	2,427	37				
BULGARIA	47	5				
DENMARK	25	1				
FRANCE	292	94				
GREECE	2,480	188				
ITALY	132	11				
JAPAN	47	1				
NORWAY	400	20				
RUMANIA	1,196	75				
TURKEY	62,217	4,515	39,918	5,917		
SPAIN					45,514	9,857
OTHERS			199,647	26,837	59,058	9,778
TOTAL	89,977	5,821	239,565	32,754	110,265	20,218
CRUSTACEANS, SALTED OR COOKED						
FRANCE	121	25				
GREECE	200	56				
OTHERS			1	1	27	19
TOTAL	321	81	1	1	27	19
MOLLUSKS, SALTED OR COCKED						
U. S.	698	32				
U. K.	1,008	39				
CYPRUS	1,092	37				
HEDJAZ & NEJD	137	3				
FRANCE	6,005	353				
TUNIS	510	20				
GREECE	823	34				
OTHERS			187	15	115	28
TOTAL	10,273	518	187	15	115	28
TURTLE, SALTED OR COOKED						
PALESTINE	624	12				
SYRIA	1,425	23				
TURKEY	3,850	34				
OTHERS			30,404	1,978	17,432	758
TOTAL	5,899	69	30,404	1,978	17,432	758

Exports

Exports, except for stores loaded on foreign ships, are negligible. Prior to World War II small amounts of salted fish were exported to Palestine. Very small quantities of salted fish are now being exported to the Sudan.

Regulations

The Egyptian state owns all fishing rights in the country and no fishing can be carried on without a fishing license. Some of the fishing territory is leased to private operators but in general most of the fishing grounds are free to fishermen who have permits but are required to follow certain rules and regulations laid down by the Fisheries Administration.

The government's annual revenue from the fisheries varies from LE 60,000 to 80,000 consisting of license fees, rentals and other charges levied on the fishing industry.

Fisheries Administration

The local government at Alexandria created the Fisheries Research Directorate to improve fishing methods and to aid the fishing industry. Experts were brought from abroad and scientific missions were sent out to other countries for research work on fisheries. By 1931 the staff became all Egyptian.

In 1935 the Egyptian government took over the undertaking and placed the Research Directorate in its Ministry of Commerce, where as the Fisheries Administration it broadened its field of work and now is engaged in three main lines of activity.

Research

In pure scientific research the Fisheries Administration is studying fish and marine organisms and is engaged in hydrographical investigations, particularly the physico-chemical composition of ocean, brackish and fresh waters encountered in Egypt.

Conservation

The Fouad I Hydrobiological and Fisheries Service Institute, successor of the old Fisheries Research Directorate, has already been able to give practical application to some of

its work in marine biology and hydrography. Transportation to a suitable environment has saved millions of fry. Lake fish threatened with extermination by changes in the irrigation and drainage systems of Egypt have been saved.

In the commercial field the Fisheries Administration has plans for improving the fishery industry. Its main activities at the moment are:

1. Daily collection of statistics from various fisheries.

2. Keeping a record of prices in the various markets.

3. Raising the standard of living among the fishermen; protecting them against the fish dealers; promoting cooperation among the fishermen.

4. Establishment of technical schools for fishermen.

5. Establishment of canning, smoking, and pickling factories.

6. Creation of plans for production of fish oils and fish meal.

7. Development of the sponge industry along the coast from Alexandria to Sollum where some of the best sponge beds in the world are found.

8. Introduction of oyster and mussel culture.

The equipment and facilities of the Fisheries Administration are as follows:

Fouad.1st Hydrobiological and Fisheries Institute

This is the old fisheries research laboratory established near Kayed Bey Fort in Alexandria on the site of ancient Pharos. It has well equipped research laboratories; the best library in Egypt on oceanography and related subjects; a museum of Egyptian fish; and an aquarium of 23 tanks. It is open to research workers from all parts of the world interested in the study of the Eastern Mediterranean or the delta lakes.

Mex Fish Hatchery

The Mex fish hatchery east of Alexandria has ponds supplied with water from Mariout Lake suitable for the breeding and study of delta lake fish.

Barrage Fish Hatchery

This is near Cairo and carries on experimental work with fish in waters of the Nile.

Fry Transport Stations

The run of mullet fry is observed where fresh water canals empty into the coastal waters. The Fisheries Administration takes advantage of this run to restock the lake waters with mullet. There are stations at Aboukir, near Alexandria; Kabouti, near Port Said; and Ratama, near Manzala Lake for restocking Mariout, Edkou and Manzala. Lake Karoun is supplied with mullet from the Mex station.

Research Ship Mabahiss

The research ship Mabahiss (Research) was built in 1930. It has a length of 42 meters and is 185 tons deadweight. It is especially equipped for oceanographic surveys in Egyptian seas.

Research Launch El Hoot

El Hoot (The Shark) is 12 meters long and is used for research work along the coast.

Comment

The fishing industry is just beginning to receive the attention it merits because of its importance in the economic life of the country. The Ministry of Commerce is taking steps to see that the Fisheries Administration scheme for new fish markets is carried out. These will maintain a better control over prices and the catch. Other improvements are being worked out in transportation and refrigerated warehouses in fishing areas.

The outlook for the sale of American canned, salted, dried and smoked fish is not bright. American products during the prewar years were popular. Now the shortage of dollars, more acute since the devaluation of the Egyptian pound, and the strict control over exchange releasing dollars only for essentials are barriers to placing orders in the United States. Furthermore, European competitors, United Kingdom, Norway, Portugal, Spain and France, have the advantage and will be hard to dislodge.

In preparing this report no attempt has been made to cover in detail the Red Sea fisheries with a catch of 4,000 tons per annum. Cairo's report No. 42, February 12, 1948, entitled, "Production of Edible Fish in the Red Sea," fully reported on the Red Sea fishing grounds.

Likewise no information about the sponge fishing industry has been given herein. Periodic reports submitted by the Alexandria Consulate General have kept the information current. The last sponge report was Report No. 8, July 18, 1949, entitled, "Sponges - Egypt."

Following is a list of the more common fish in Egyptian waters giving the Arabic and the Scientific names. Identification was made at the Alexandria Institute of Hydrobiology and Fisheries by various scientists who have visited the Institute.

Arabic and Scientific Names of Most Common Fish in Egyptian Waters

Mediterranean Sea:

Arabic Name	Scientific Name
Balamita	Pelamys (species)
Barboni	Mullus barbatus (and species)
Botaite	Crenidens
Chaour	Lethrinus nebulosus
Cheikh	Serranus scriba
Denis (sea breem)	Sparus aurata
Gambari (shrimps)	Peneus (species)
Karous	Morone labrax
Lout	Sciaena aquila
Mosa	Box boops
Sarb	Box salpa
Mourgane	Pagellus erythrinus
	" mormyrus
Myas	Temnodon saltator
Sardine	Alosa finta
Seif	Trichurus haumela
Wahche (shark)	Carcharias obstusirostris
Irsh	Scyllium canicula
Faras el Bahr	Hippocampus guttulatus
Thunna	Thynnus thunnina
Sandouk	Ostraction trigonus

Lake and Nile River Water Fish:

Bayad	Bagrus bayad
Bolti	Tilapia zillii
	" nilotica
	" galiloea
Bourri	Mugil cephalus
Bynni	Barbus bynni
	" perince
Farkha	Dactylopterus volitans
Garan	Mugil saliens
Irche	Selaciens
Karmout	Clarias anguillaries

Lake and Nile River Water Fish (Cont.):

Arabic Name	Scientific Name
Kelb el Bahr	Hydrocyon forskalii
Labiese	Labeo niloticus
Lates	Lates niloticus
Nokt	Morone punctata
Raad	Malopterurus electricus
Raille	Alestes dentex
Sardine	Sardinella granigera
Sire	Labeo niloticus
Tobar	Mugil capito

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1948. Production of Edible Fish in the Red Sea. Fishery Leaflet 310, U. S. Fish and Wildlife Service, Washington 25, D. C.

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